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# **NAVAL POSTGRADUATE SCHOOL**

## **Monterey, California**



## **THESIS**

**THE PLA NAVY LOOKS TO THE INDIAN OCEAN**

by

Jonathan T. Good

March 2002

Thesis Advisor:  
Second Reader:

H. Lyman Miller  
Edward A. Olsen

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**THE PLA NAVY LOOKS TO THE INDIAN OCEAN**

Jonathan T. Good  
Lieutenant, United States Navy  
B.A., University of Pittsburgh, 1993

Submitted in partial fulfillment of the  
Requirements for the degree of

**MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS**

from the

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## **ABSTRACT**

This thesis examines the implications of China's security needs for the modernization and role of the People's Liberation Army Navy (PLAN) in the Indian Ocean. The main argument is that the expansion of China into a new maritime area of operation is likely to solidify Beijing's current regional relationships and possibly lead to a naval arms buildup in the Indian Ocean region. Although the 2001 Quadrennial Defense Review does not explicitly name China, its conclusion that a "military competitor with a formidable resource base will emerge" in Asia clearly implies that the United States will have to take into account China's aspirations to become a regional and potentially global maritime power in the 21<sup>st</sup> century.

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## **EXECUTIVE SUMMARY**

This thesis examines the implications of China's security needs for the modernization and role of the People's Liberation Army Navy (PLAN) in the Indian Ocean. The main argument is that the expansion of China into new maritime area of operation is likely to solidify current regional relationships and possibly lead to a naval arms buildup in the Indian Ocean region.

Although the 2001 Quadrennial Defense Review does not explicitly name China, the conclusion that a "military competitor with a formidable resource base will emerge" in Asia clearly implies that the United States will have to take into account China's aspirations to become a regional and global maritime power in the 21<sup>st</sup> century.

This thesis consists of five chapters. Chapter Two examines the historical role of the PLAN from pre-revolution traditions to the navy modernized by Deng Xiaoping. It contends that the role of the navy has played a rather small part in China's history. Chapter Three examines how China's neighbor India is linked to China's security. PLAN advances into the region are analyzed to give a broader picture of Chinese foreign policy in the region. Chapter Four looks at China's current capacity of the PLAN and investigates its potential weaknesses. The thesis concludes by assessing how the PLAN will play an increasingly important role in the calculus of Chinese national security in the 21<sup>st</sup> century and examining the implications for U.S. policy in the area.

## **I. INTRODUCTION**

This thesis examines the implications of China's security needs for the modernization and role of the People's Liberation Army Navy (PLAN) in the Indian Ocean. The main argument is that the expansion of China into a new maritime area of operation is likely to solidify current regional relationships and possibly lead to a naval arms buildup in the Indian Ocean region.

The research for this project draws upon an assortment of both primary and secondary sources. The latter includes: books, academic periodicals, internet resources, and conference papers relevant to the evolving security environment in the region.

### **A. U.S. INTERESTS IN THE REGION**

Although the terrorist attacks carried out against the United States on September 11<sup>th</sup> have created new coalitions and dialogue to fight the war on terror, there are still many issues that divide Beijing and Washington. In the 2001 Quadrennial Defense Review (QDR) the "East Asian littoral—from the Bay of Bengal to the Sea of Japan—represents a particularly challenging area" and maintains that Asia is "gradually emerging as a region susceptible to large-scale military competition."<sup>1</sup> Although the report does not explicitly name China, its conclusion that a "military competitor with a formidable resource base will emerge" clearly implies that the United States will have to take into account China's aspirations to become a regional and global maritime power in the 21<sup>st</sup> century.

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<sup>1</sup> "Quadrennial Defense Review Report", *Department of Defense Publication*, September 30, 2001 available online <<http://www.defenselink.mil/pubs/qdr2001.pdf>>



## **B. CHAPTER OUTLINE**

This thesis consists of five chapters. Chapter Two examines the historical role of the PLAN from pre-revolution traditions to the navy modernized by Deng Xiaoping. It contends that the role of the navy has played a rather small part in China's history.

Chapter Three examines how China's neighbor India is linked to China's security. PLAN advances into the region are analyzed to give a broader picture of Chinese foreign policy in the region. The Chapter also assesses China's past and future economic and energy needs in order to evaluate the significance of China's current and potential future actions in the Indian Ocean. Chapter Four looks at China's current capacity of the PLAN and investigates its potential weaknesses.

Understanding Beijing's motivations for modernizing the PLA and its navy in particular is not a simple issue. The thesis concludes by assessing how the PLAN will play an increasingly important role in the calculus of Chinese national security in the 21<sup>st</sup> century and examining the implications for U.S. policy in the area.

## II. PLAN HISTORICAL ROLE

### A. NAVAL TRADITIONS THROUGH 1949

The PLAN began on the limited navy-building efforts of the ROC regime. In the early 20th century, the Kuomintang began to build a naval fleet. However, in the 1930s, Japan occupied the majority of China's coastal ports and shipyards and trapped both the Chinese Nationalists and Communists deep in the interior.<sup>2</sup> Between 1945 and 1949, China received 271 World War II surplus ships from the United States.<sup>3</sup> The U.S. Military Assistance Group in China advised the KMT on how to employ the navy in modern warfare, but the military was solely interested in pursuing its land-based civil war with the Communists. As in China's long past, the naval aspect of war in China was minimal.

In December 1948, the Communists cut off the Nationalists at Qingdao and left the ROC navy isolated. Nationalist forces disassembled the base and evacuated to Taiwan. As the Kuomintang fortunes declined in the campaigns on the water and on land, the navy was more frequently called upon to aid in retreats.<sup>4</sup> Over the next year, the ROC navy was engaged almost entirely in transporting more than 600,000 military personnel and two million civilians from the Chinese mainland to Taiwan.<sup>5</sup>

The entire ROC navy did not completely evacuate to Taiwan. In the beginning therefore, the PLA Navy was comprised mainly of ships that were captured or defected from the Nationalists. Apart from the ships, some former Nationalist forces also defected with their naval assets.

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<sup>2</sup> Muller, David G., Jr. *China as a Maritime Power*. (Boulder, Colo.: Westview Press, 1983), 7.

<sup>3</sup> *Ibid.*, 7.

<sup>4</sup> *Ibid.*, 8.

<sup>5</sup> *Ibid.*, 9.

Hence, the personnel in the formative years of PLAN were mainly drawn from different army units of the PLA and these former Nationalists.

The Soviet Union had a strong presence in the Lushan area from the end of World War II. Therefore, the Soviet Union was an important factor in the Chinese maritime affairs in the immediate postwar period. The Soviets offered the training for future Chinese naval officers and enlisted personnel at the Dalian academy and another training school in Jiamusi near the Soviet-Manchurian border.<sup>6</sup>

On April 23, 1949, the East China Military Region Navy was formed the same day with General Zhang Aiping as the first commander and political commissar. Because of this, many consider April 23, 1949 as the birthday of PLAN. However, the formal establishment of the Navy came one year later, on April 14, 1950, by order of the Central Military Commission (CMC) and with the establishment of the national Naval Headquarters at Beijing, with Xiao Jingguang as its first Commander.<sup>7</sup> Zhang and Xiao were officers who had spent their entire careers as army commanders and were transferred to the navy for political reliability, not because of any actual naval experience.<sup>8</sup>

Mao employed a guerrilla strategy of "people's war," to fight the Japanese in World War II and the Kuomintang in the 1945-1949 civil war. This concept of "active defense" worked by drawing the enemy deep into China's interior, and Chinese forces would then tire out the overstretched enemy and launch a counteroffensive to drive the enemy out. It was a strategy intended to defeat a superior technological

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<sup>6</sup> Muller, 12.

<sup>7</sup> Cole, 17.

<sup>8</sup> Ibid., 17.

force. The defensive posture of people's war doctrine did not call for the projection of sea power and was designed for "guerrilla skirmishes against invaders at sea" and was centered around a light type navy.<sup>9</sup>

#### **B. POST-REVOLUTION TRENDS THROUGH THE SINO-SOVIET SPLIT 1949-1959**

On October 1, 1949, at Tiananmen gate in front of the Forbidden City, Mao declared that, "The Chinese people have stood up!" and the People's Republic of China was established with the creation of a people's democratic dictatorship.<sup>10</sup> The party was under Mao's chairmanship, and Zhou Enlai was premier of the State Administrative Council. The people were neatly placed into four social classes: the workers, the peasants, the petty bourgeoisie, and the national bourgeoisie.<sup>11</sup> These four classes were to be led by the CCP, the vanguard of the working class.

The Communists came to power with limited resources and a perception of external threats that persuaded them to postpone building a maritime force. The fledgling PRC was faced with establishing itself in the unstable world of the Cold War era. The international system was confronted with a struggle between the United States and the Soviet Union.

Mao's government was not accepted as legitimate by the United States. However, the People's Republic of China was immediately recognized by the Soviet Union and Eastern Europe bloc. This gave birth to the decade of the Sino-Soviet alliance, and, after substantial talks with Moscow, the PRC was given aid by the Soviet Union.

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<sup>9</sup> You, Ji. *The Armed Forces of China*. (New York: I.B. Tauris Publishers, 1999), 164.

<sup>10</sup> Schell, Orville. *Mandate of Heaven: The Legacy of Tiananmen Square and the Next Generation of China's Leaders*. (New York: Simon & Schuster, 1995), 24.

<sup>11</sup> Meisner, Maurice J. *Mao's China and After: A History of the People's Republic*. 3rd ed. (New York, NY: Free Press, 1999), 60.

Under the Sino-Soviet Treaty of Friendship, Alliance and Mutual Assistance, the Chinese established very firm security and economic ties to the Moscow. The USSR had tremendous political and economic power. Stalin agreed to China's request for a five-year \$300 million loan, and he agreed that China could use half of it to pay for Soviet equipment for the Chinese navy.<sup>12</sup>

### **1. Force structure**

During the first decade after the PLAN was established in 1949, its closest and most important relationship was with the Soviet Navy. Given the fact that the PRC was not recognized by the United States and several other Western countries, China was restricted to trade primarily over land with the Soviet Union and other Eastern bloc nations. With Soviet assistance, China was able to develop the infrastructure needed for a navy.<sup>13</sup>

Ties to the Soviet Union served the critical purposes of providing the PLAN with ships, submarines, and other equipment. The need for shore-based naval aircraft, fighters and bombers, was also based on a borrowed maritime strategic concept. Like the Soviets, the Chinese had to economize on naval construction for basic industrial and political development.

Mao continued to allow the Soviets to use Lushun, and the Soviet Naval Advisory Mission was established in the early 1950s to offer advisors and several types of Soviet warships.<sup>14</sup> In 1951, the Soviets gave the PRC its first ships--World War II-era torpedo boats. In 1954, China

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<sup>12</sup> Nathan, Andrew J., and Robert S. Ross. *The Great Wall and the Empty Fortress: China's Search for Security*. (New York: W.W. Norton, 1997) 39.

<sup>13</sup> Yung, Christopher D. *People's War at Sea: Chinese Naval Power in the Twenty-First Century*. Alexandria, VA: Center for Naval Analysis. (March 1996) 11.

<sup>14</sup> Kondapalli, Srikanth. "China's Naval Equipment Acquisition." *Strategic Analysis* 23, no. 9 (December 1999):1509-30. available online <<http://www.idsa-india.org/an-dec9-7.html>>

received its first operational Soviet submarines. Most of the technology transferred was primarily for coastal operations. For the PRC, the Korean War was primarily a land and air war, so the naval development in China was not a priority.<sup>15</sup> After 1955, Soviet assistance focused on helping the Chinese build their own ships in indigenous shipyards.

## **2. "People's War under modern conditions" Doctrine**

Despite the fact that "People's War" was standard doctrine until the late 1970s, during the Korean War, Chinese troops were faced with modern air and naval power. This forced China's military planners to recognize the role these weapons would have in future wars. After the Korean War, "People's War under modern conditions" emerged and adhered to the same basic principles as "People's War" with some modifications. War would be with an enemy possessing superior arms and develop into a large-scale conflict with sophisticated weapons and China would be the main battlefield. This modification was prompted by the United States and its credible threat to use nuclear weapons. Beijing secretly started Projects 02 (nuclear weapons), 05 (ballistic missiles), 09 (nuclear power submarines), and JL (submarine launched ballistic missiles).<sup>16</sup>

## **C. SINO-SOVIET SPLIT**

By the late 1950s, Beijing split from the Soviet leadership over ideological and other issues that led to a withdrawal of technical advisors from China in 1959. In 1956, Mao Zedong and his associates had already begun criticizing Defense Minister Peng Dehuai for adopting Soviet military practices uncritically, without regard to

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<sup>15</sup> Cole, 20.

<sup>16</sup> Lewis, John Wilson, and Xue Litai. *China's Strategic Seapower: The Politics of Force Modernization in the Nuclear Age*. (Stanford, Calif.: Stanford University Press, 1994), 212.

the peculiar conditions applying to China and the extensive military experience of the PLA during the civil war.<sup>17</sup>

Nikita Khrushchev introduced the doctrine of peaceful coexistence between the socialist and capitalist worlds, and the Soviets seemed unwilling to give their support to the PRC on the Taiwan question.<sup>18</sup> This led to a rivalry within the international communist movement between the Beijing and Moscow. The Chinese accused the Soviet Union of "revisionism," and the Soviets countered with charges of "dogmatism,"<sup>19</sup>

The Soviet suspension of aid was a serious setback to the Chinese, who were attempting to develop industrial and high-level technology. From late 1959 until the mid-1960s, the Soviets recalled all of their technicians and advisers from China and reduce—then canceled—the flow of economic and technical aid to China. This affected the efforts of the PLAN because the loss in Soviet technical advisors hurt Chinese shipbuilding and limited the development of the Navy.

Chairman Mao was concerned with the Navy as a viable force to consolidate national defense and to protect the PRC from coastal attack.<sup>20</sup> To do this the PRC needed to eliminate the KMT on the coastal islands. The PLA's first campaign to take the island of Quemoy in October 1949 failed. However, in early 1950, the Nationalists were caught off guard at Hainan and the PLA successfully landed and occupied the island. There is evidence that the PRC was contemplating an invasion of Taiwan scheduled for

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<sup>17</sup> Muller, 33.

<sup>18</sup> Nathan and Ross, 41.

<sup>19</sup> Garver, John W. *Foreign Relations of the People's Republic of China*. (Englewood Cliffs, N.J.: Prentice Hall, 1993), 140.

<sup>20</sup> Kondapalli, Srikanth. "China's Naval Strategy." *Strategic Analysis* 23, no. 12 (March 2000): 2037-51. available online <<http://www.idsa-india.org/an-oct9-4.html>>

spring of 1950, but they postponed it to the summer of 1951.<sup>21</sup> These landings never materialized and the Chinese were faced with the commencement of hostilities on the Korean peninsula.

The Korean War was extremely important in the PRC's formative years. While the PLAN played a small role in the conflict, U.S. involvement shaped the PRC and PLA maritime thinking for the next two decades. Days after North Korea invaded South Korea, President Truman ordered the Seventh Fleet to prevent any attack on Taiwan from the mainland.<sup>22</sup> From that point on, Taiwan was safeguarded under U.S. military defense.

#### **D. SELF-RELIANCE UNDER MAO'S LEADERSHIP 1960-1976**

In the 1960s, China viewed itself in a position to challenge the Soviet Union as the leader of the socialist camp and the international communist movement. The United States and the Soviet Union were clearly at the top of their respective coalitions and using that power to exploit and manipulate others within their sphere of influence as well as in the Third World. China viewed its foreign policy in terms of a dual adversary role with the superpowers.<sup>23</sup> Mao was now working on establishing the PRC as the leader for the people in the Third World. Diplomatic recognition in Asia and the African continent during this time also added new vigor to Mao's struggle for international recognition and legitimacy.<sup>24</sup>

During the 1960s, there were internal struggles within the Chinese Communist Party. The Chinese economy in the early 1960 was in disarray due to the failure of Mao's

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<sup>21</sup> Cole, 18.

<sup>22</sup> Nathan and Ross, 62.

<sup>23</sup> Ibid., 43.

<sup>24</sup> Ibid., 45.



"Great Leap Forward." In an effort to stabilize the economy, Liu Shaoqi, Deng Xiaoping, and Chen Yun initiated a series of corrective measures. In 1962, Mao began the Socialist Education Movement and attempted to purify the party. The primary emphasis was on restoring ideological purity, infusing revolutionary fervor into the party and government bureaucracies, and intensifying class struggle. This Socialist Education Movement, paired with "learn from the People's Liberation Army," served to enhance Mao and Lin Biao's power.<sup>25</sup>

### **1. Cultural Revolution**

In late 1965, Mao and his supporters (Lin Biao, his wife Jiang Qing, and Chen Boda) made an effort to purge and attack a wide variety of people that included party and state leaders. By mid-1966, Mao's campaign had exploded into the Great Proletarian Cultural Revolution, the first mass action to attack the CCP apparatus itself.

The Cultural Revolution manifested the CCP's internal rivalries. On the one side was the Mao-Lin Biao group, supported by the PLA, and on the other side was a faction led by Liu Shaoqi and Deng Xiaoping, whose strength was in the party institutions and operations.

The Great Proletarian Cultural Revolution also affected the PLAN. However, unlike other Party and military establishments, the clashes largely affected and were confined to the higher echelons. As a result, many senior officers were purged or came under a political cloud and had no choice but to resign.<sup>26</sup>

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<sup>25</sup> Lewis and Xue, 35.

<sup>26</sup> Kondapalli, *China's Naval Strategy*

Beijing viewed the Soviet Navy as a major amphibious invasion threat.<sup>27</sup> The Chinese were alarmed in 1966-68 by the steady Soviet military buildup along their common border. The Soviet invasion of Czechoslovakia in 1968 heightened Chinese apprehensions. In March 1969, Chinese and Soviet troops clashed on Zhenbao Island in the disputed Wusuli Jiang border area.

## **2. Leaders**

The ongoing internal factional struggles inside the CCP compelled Peng Dehuai, the then Defense Minister and military strongman, to step down in 1959. This resulted in the ascendancy of Lin Biao as the most powerful military leader. Lin Biao had a better understanding about the long-term strategic concepts of an operational naval force. The navy's political commissar, Li Xuepeng, was a close friend of Lin's.

## **3. Force structure**

The flow of Soviet ship components and spare parts dried up and naval and national leadership learned how vulnerable China had become as a result of its dependence upon a foreign country. The PLAN was forced to look internally and develop its capabilities with Soviet plans, but without Soviet advisors. The Chinese successfully added the Komar missile boat, the Shanghai class coastal patrol boat, the Hainan sub chaser, and the Hushuan hydrofoil torpedo boat to the surface fleet.<sup>28</sup> The sub surface fleet featured the *Romeo* class attack submarine and one *Golf* class submarine for the JL-1 SLBM. The PLAN had to be satisfied with whatever limited budget allocation was forthcoming.

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<sup>27</sup> Cole, 22.

<sup>28</sup> Muller, 94.

#### **4. Soft Alignment**

The next period the Chinese entered into was a phase of Sino-American soft alignment against the Soviet Union.<sup>29</sup> The Soviets were becoming increasingly powerful in the international arena. Mao's call to "dig tunnels deep, store grain everywhere" is perhaps the most concrete indication of how serious the Soviet threat was during those years. The Chinese saw the Soviet Union as expansionist and imperialist. The Soviet Pacific fleet was rapidly expanding and was receiving Moscow's latest combatants, including nuclear-powered and nuclear-armed surface ships.<sup>30</sup>

To Beijing, the United States was clearly on the decline due to the losses suffered in Vietnam and was making overtures to reconcile past differences. China viewed Japan as a lackey of the United States. The Nixon-Sato communiqué of November 1969 linked Japan's security to the security of South Korea and to the Taiwan Strait. As the United States diminished commitments in the region Japan was to become an "Asian policeman."<sup>31</sup>

President Nixon's visit to China in February 1972 and the resulting Shanghai Communiqué catapulted the Chinese international status to heights never before realized. The Chinese still saw the Americans as an imperialist power, but it was no longer the foremost threat.

#### **5. End of Mao**

The year 1976 saw the deaths of Zhou Enlai in January and Mao Zedong in September, the two most senior officials in the CCP. In April of the same year, demonstrators in

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<sup>29</sup> Nathan and Ross, 44.

<sup>30</sup> Cole, 24.

<sup>31</sup> Muller, 113.

Tiananmen Square memorialized Zhou Enlai and criticized Mao's closest associates, Zhou's opponents.

In April 1976, Deng was removed from all his public posts, and a relative unknown, Hua Guofeng--a Political Bureau member, vice premier, and minister of public security--was named acting premier and party first vice chairman. Even though Mao Zedong's role in political life had become irregular in his later years, it was still important. The political system had polarized in the years before Mao's death into increasingly bitter and irreconcilable factions. His death only partially resolved the problems inherent in the succession struggle.

The radical clique most closely associated with Mao and the Cultural Revolution became vulnerable after Mao died, as Deng had been after Zhou's demise. In October, less than a month after Mao's death, the Gang of Four were arrested and within days it was proclaimed that Hua Guofeng had assumed the positions of party chairman, chairman of the party's Central Military Commission, and premier.

#### **E. DENG XIAOPING'S NAVY**

Over the next two years, the post-Mao leadership then fell under the influence of Deng Xiaoping. Deng Xiaoping's power was solidified at the Third Plenum of the Eleventh National Party Congress Central Committee in December 1978. The party line calling for protracted class struggle was exchanged for promoting the "four modernizations"--the modernization of industry, agriculture, science and technology, and national defense. Deng Xiaoping mobilized the Chinese people and began to make China a world power.

National development and economic goals would be the measure of the success or failure of policies. China's leaders experimented with ways to modernize the economy.

New agricultural policies allowing peasants to produce more on their own initiative were approved. China accepted international bank loans and entered into joint ventures with foreign capitalists.

The year 1979 witnessed the formal exchange of diplomatic recognition between the People's Republic and the United States, a border war between China and Vietnam with no significant naval involvement, and the determination not to extend the thirty-year-old Treaty of Friendship, Alliance, and Mutual Assistance with the Soviet Union.

### **1. Integration with Chinese Characteristics**

China in the 1980s increasingly used improved bilateral relations and a variety of international forums to project its independent foreign policy while opening up to the outside world. The two superpowers were in both a nuclear and conventional arms race against each other. China was no longer dependent on aligning itself with another country for support or to provide a balance, and it was making efforts to integrate itself into the global community. Beijing continued to balance its concern for security with its desire for an independent foreign policy. China continued to insist that the Soviet Union remove the "three obstacles" before relations between the Chinese and Soviet governments and parties could improve.

In the mid-1980s, China launched its highly ambitious program of military modernization with a decision to reduce its existing military forces. The PLAN's role was redefined to include projection of force beyond of the immediate coast. This gradually led the PLAN to shift to building major surface combatants and submarines. Generally, this period is taken as the turning point in a

transition from China's traditional coastal defense to one of power projection onto the high seas.

## **2. Mission**

The 1985 decision on military modernization called for changes in the PLA in all aspects: size, types of weapons, and doctrine. It emerged gradually out of changing security perceptions since the 1970s. During the late 1970s, there had been an emerging need for the improvement of a merchant marine force and the consequent need to protect sea-lanes. China also had a growing interest in offshore oil resources in the South China Sea. There was always the fear of a possible Soviet blockade and an amphibious assault.<sup>32</sup> To cope with these problems, the need for modernization of the navy was acknowledged by the Chinese political leadership.

By the late 1980s, PLAN missions were defined to be safeguarding China's territorial integrity, being prepared for a potential requirement to blockade Taiwan, preventing a sea based invasion of China, and, over the long term, building a survivable, sea-based nuclear retaliatory force.<sup>33</sup>

During the early 1980s, the PLAN began conducting voyages farther from coastal waters:

- In April and May 1980: the PLAN sent a composite formation of eighteen ships to the South Pacific to provide security for China's first CSS-4 ICBM launch tests over water.

- In October 1983 to April 1984: the navy dispatched an oceangoing rescue vessel to the Pacific Ocean three

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<sup>32</sup> Kondapalli, *China's Naval Strategy*

<sup>33</sup> Godwin, Paul H. B. "From Continent to Periphery: PLA Doctrine, Strategy, and Capabilities Towards 2000," *China Quarterly* 146 (June 1996), 469.

times, where it tracked an experimental communications satellite.

-In November 1984 to April 1985: the Navy dispatched a salvage vessel to join the first oceangoing formation from China to the South Pacific and Antarctica to conduct scientific studies.

-In 1985: the PLAN sent three ships on a coast-hugging voyage to Pakistan, Bangladesh, and Sri Lanka for the first time.<sup>34</sup>

In 1985, China's military strategy shifted again because of the Deng's conclusion that a major war with the Soviet Union was not probable. A focus on "limited war," with short clashes restricted certain geographic areas, was adopted.

### **3. "Limited War" Doctrine**

In the early 1980s, the PLA was still concerned with a major war with its superpower neighbor, the Soviet Union. This called for a defense deployed for anti-attack purposes, but it did not exclude the possibility of offensive strikes for the purpose of self-defense or for offensive action after a period of defense.<sup>35</sup>

Even though the PLAN's role and function in war was still a marginal one, the new maritime strategy now addressed a "green water" scope for naval activities.

### **4. Leaders**

The PLAN Commander from 1982 to 1988, Admiral Liu Huaqing, also served later as vice chairman of the CMC. He was resolute on developing the relationships with the

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<sup>34</sup> McVadon, Eric A and Kenneth W. Allen. *China's Foreign Military Relations* Henry L. Stimson Center. (October 1999) available online <<http://www.stimson.org/china/pdf/chinmil.pdf>>, 47.

<sup>35</sup> You Ji, 165.

Europeans and in concluding agreements that led to the acquisition of different weapon systems.<sup>36</sup> PLA naval doctrine by China's third Navy Commander Admiral Liu Huaqing was the first one to publicly present and employ an 'offshore active defense strategy'.<sup>37</sup>

#### **F. SUMMARY-END OF AN ERA**

In the 1990s, China reassessed the new security environment of Asia in the post-Cold War era. The collapse of the Soviet Union forced China to focus its efforts in an increasingly unipolar world with the United States-led international system. China's overwhelming national objective has been to see China rise to the status of a great power in a multipolar world.<sup>38</sup>

The 1991 Gulf War revealed the capabilities of the technologically advanced forces of the United States. This further re-invigorated Chinese leaders' attention towards the Navy. A relationship with Moscow that preceded the collapse of the USSR was also revamped.

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<sup>36</sup> McVadon and Allen, 47.

<sup>37</sup> Singh, Swaran "Continuity and Change in China's Maritime Strategy." *Strategic Analysis* 23, no. 9 (December 1999):1493-1508. available online <<http://www.idsa-india.org/an-dec9-6.html>>

<sup>38</sup> Roy, Denny. *China's Foreign Relations*. (Lanham, MD: Rowman & Littlefield, 1998), 41.



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### III. CHINA'S SECURITY NEEDS IN THE INDIAN OCEAN

#### A. CHINA'S RIVALRY WITH INDIA

During the Cold War the PRC-Indian relationship was tenuous. At different times both nations were allied with the Soviets, and both focused on a series of economic programs to develop their respective infrastructures. While the two were never close, neither were they hostile.

Since the 1962 war, China has continued its occupation of the Aksai Chin area, through which it built a strategic highway linking Tibet and Xinjiang autonomous regions.<sup>39</sup> India's primary security interest is in Arunachal Pradesh, the state bordering Tibet. After the 1962 Sino-Indian border war, the relations between China and India improved, but never quite reached the high experienced in the 1950's.

India claims it was the Chinese threat, not Pakistan, that prompted it to develop a nuclear weapons capability and conduct tests in 1998.<sup>40</sup> A week before the 1998 tests, Indian Defense Minister George Fernandes said in a controversial interview that "China is potential threat number one...the potential threat from China is greater than that from Pakistan, and any person who is concerned about India's security must agree with that fact."<sup>41</sup> The day after the first round of tests, on May 12, PRC media devoted surprisingly brief stories to the test, and on May 13, before the second round of tests had been announced, a foreign ministry spokesperson noted only that "the Chinese government expresses its grave concern" and that the tests

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<sup>39</sup> Roy, 172.

<sup>40</sup> Known as the Pokhran II tests of 1998. India notes that it was the threat from Chinese ICBM, vice Pakistani ownership of nuclear weapons, which brought about the development of India's nuclear capability. Jha, Prem Shankar "Why India Went Nuclear" *Columbia International Affairs Online* Vol. 2, No. 3 (Jul.-Sept.1998) found online <[http://www.ciaonet.org/olj/wa/wa\\_sep98jhp.html](http://www.ciaonet.org/olj/wa/wa_sep98jhp.html)>

<sup>41</sup> Frazier, Mark W. "China-India Relations since Pokhran II: Assessing Sources of Conflict and Cooperation" *National Bureau of Asian Research* Vol. 3, No. 2 available online <<http://www.nbr.org/publications/review/vol3no2/essay.html>>

were "detrimental to peace and stability in the South Asian region."<sup>42</sup>

With the collapse of the Soviet Union, India and China are two Asian nations competing for international and regional influence. China faces India as the only other Asian nation comparable in size, population, and military capability. Behind the United States and Japan, China then India are becoming the major military forces in Asia.

### **1. Indian Ocean**

The Indian Ocean is the third largest ocean in the world and lies to the south of Asia between Africa and Australia with Antarctica in the South.<sup>43</sup> The Indian Ocean is both an international trade lifeline and a strategic waterway for India's maritime trade and energy supply. The Indian Ocean has 36 states around its littoral belt with a population of over a billion people.<sup>44</sup> India promotes a policy that stresses "South Asia for the people of South Asia."<sup>45</sup>

### **2. Indian Navy**

The Indian navy is now the largest naval force in the Indian Ocean. India's development of a navy dedicated to sea control of the Indian Ocean is in its initial stages of development. The Indian navy is transitioning from a littoral force to a blue-water one. While primarily capable of sea control duties, the indications are clear that development is underway. Since the 1990s, India has further stepped up control of the Indian Ocean. The Indian navy has drawn up a 25-year (from 1990 to 2015) modernization plan to maintain a kind of "strong and

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<sup>42</sup> Frazier

<sup>43</sup> Sidhu, K. S. The Role of Navy in India's Defense. (New Delhi: Harnam Publications, 1983) p.1

<sup>44</sup> Sidhu, K. S. The Role of Navy in India's Defense. (New Delhi: Harnam Publications, 1983) p.2

<sup>45</sup> FBIS-CHI-2000-1120 "China NDU Professor Views India's Military Power"

effective military presence" and to ensure an effective "prevention against any powers entering the Indian Ocean."<sup>46</sup>

In February of 2001, India hosted an International Fleet Review (IFR) in Mumbai. The event brought naval vessels from all the major powers including the US, the UK, Russia, and France.<sup>47</sup> Later, in May of 2001, Chinese vessels arrived for the first time since 1994 to conduct maneuvers with the Indian Navy.<sup>48</sup>

To counter the threat, India perceives it must develop a fleet capable of checking the Chinese navy at every opportunity, as far from Indian shores as possible. Even though goodwill visits by ships of both nations have occurred, the indication is clear—China is looking to expand into the Indian Ocean and India must slow its progress, if not prevent it.

### **3. Encirclement**

For years, India has been fearful of China's attempts to suppress and limit India's growth, keeping it in a secondary position. More importantly, India believes that China is conducting its operation of Indian suppression through a campaign of "encirclement." The "encirclement" theory of India focuses on China's close relations with India's neighbors. Based upon the belief that China is suppressing Indian growth by surrounding it internationally through close ties with Pakistan, Myanmar and other nations in South Asia, the theory makes China—and the influence it exerts upon these other, "encircling" nations—a major threat to Indian development and security. China's actions

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<sup>46</sup> FBIS-CHI-2000-1120 "China NDU Professor Views India's Military Power"

<sup>47</sup> Jane's Online, Newsbriefs, item:SAP20010523000015, pg 2.

<sup>48</sup> Jane's Online, Newsbriefs, item:SAP20010523000015, pg 1.

come as no surprise to India, for they follow the Kautilyan logic of international relations.<sup>49</sup>

Besides the close military ties China has with Pakistan, India also points to recent naval operations China has conducted in the Indian Ocean. Specifically, New Delhi points to deployments through the Malacca Straits. In addition, visits to Myanmar, Indonesian and Pakistani ports have brought Chinese vessels through the waterways India seeks to control.

### **C. PLAN ACTIVITIES**

#### **1. Sea Lines of Communication**

Sea lines of communication connect the world. During peace, these routes act as vital commercial trade routes. When countries are at war, these routes serve as strategic lines of communication between forces. The South China Sea to the Indian Ocean and the Middle East Asia coupled with East China Sea and the Sea of Japan to the Pacific Ocean and the Pacific coast of the United States are two significant sea lines of communications for China.<sup>50</sup>

#### **2. Energy**

The value of the PLAN as an instrument of Chinese foreign policy can no longer be denied. China's maritime economy grew 17% per year in the 1980s and 20% per year in the 1990s, and China is the third largest shipbuilding nation in the world.<sup>51</sup> Because of China's economic and security interests—each of which has important maritime

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<sup>49</sup> Kautilya was one of India's, oldest political philosophers of international relations. Kautilya presents a very realist, structural view of the international structure, encouraging leaders to maintain power through subjugation of enemies. One of the basic tenets of Kautilya, is that a nation's neighbor is its natural enemy. Likewise, the neighbor of one's enemy, should be made one's ally.

<sup>50</sup> Ji Guoxing "SLOC Security in the Asia Pacific." Center occasional paper, Asia-Pacific Center for Security Studies Honolulu, Hawaii (February 2000) available online <[http://www.apcss.org/Publications/Paper\\_SLOC\\_Occasional.htm](http://www.apcss.org/Publications/Paper_SLOC_Occasional.htm)>

<sup>51</sup> Forsberg, Steven J. "Is a China India Naval Alliance Possible?" *Proceedings*, (March 2002), 70.

characteristics—greater resources have been devoted to the modernization of the PLAN.

Concerns about China's energy security are rooted in projections of the country's future energy demand and supply.<sup>52</sup> Domestic production of energy appears limited. While China's primary energy needs will continue to be based chiefly on coal, oil will take priority in assessing China's security.

Continued economic growth has resulted in rising demand for oil and gas energy resources in China. China has been a net importer of oil since 1993, and oil will be the only possible primary fuel that will be able to satisfy the soaring demand of Chinese transportation and industry—the most rapidly growing sector of energy demand for all developing economies.<sup>53</sup> Currently around half of China's oil imports are from the Middle East.

### **3. Myanmar**

Myanmar's (formerly known as Burma) strategic position between China and India gives the relationship between Beijing and Yangon a wider than merely bilateral significance.<sup>54</sup> In August 2000, the State Law Order Restoration Council (SLORC; reorganized as the State Peace Development Council or SPDC, in 1997) regime in Myanmar conducted military naval and army exercises overseen by Chinese military advisory teams along the coast of the Andaman Sea and the Bay of Bengal. This area is some 300 nautical miles from India, and within 450 miles of the strategic Straits of Malacca, which is vital to

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<sup>52</sup> Dowens, Erica Strecker. *China's Quest for Energy Security*. (Santa Monica, Calif.: RAND, 2000) available online <<http://www.rand.org/publications/MR/MR1244>>

<sup>53</sup> Trough, Sergei. "China's Changing Oil Strategy and its Foreign Policy Implications" *Center for Northeast Asia Policy Studies Working Paper*, (Fall 1999) available online <[http://www.brookings.edu/dybdocroot/fp/cnaps/papers/1999\\_trough.htm](http://www.brookings.edu/dybdocroot/fp/cnaps/papers/1999_trough.htm) - FN2 BACK>

<sup>54</sup> Hill, John. "Myanmar's Favor in Demand" *Jane's Intelligence Review* February 01, 2002

international shipping between the Persian Gulf and the South China Sea/Pacific Ocean.<sup>55</sup> This Greater Coco Island area is where the PLA reputedly has set up electronic surveillance to monitor the Indian Ocean and some 400 miles north of the Straits of Malacca.<sup>56</sup> The port would also be within close proximity to Port Blair, the Indian facility responsible for defending the Nicobar and Andaman Islands.

Recent attempts to establish Chinese ports in Myanmar unnerve India. If China is able to secure a port at the mouth of the Irrawaddy, near Yangon, it will have achieved access to the Indian Ocean directly.<sup>57</sup> There are numerous reports of the increased presence of Chinese migrants who now dominate the populations along the banks of both the Irrawaddy and Salween Rivers.

#### **4. Pakistan**

Perhaps the close military and economic ties China has with Pakistan is the main reason for India viewing China as a threat. To utilize the Makran Coast for trade purposes, China will build a 653-km coastal highway from Gawadar to Karachi at a cost of \$1.6 billion.<sup>58</sup> Further, China has shown interest in Pakistan's Sandaik mining project and it will provide a loan of one billion dollars to Pakistan for the railways and communication.<sup>59</sup>

The Gawadar port, which is located at the opening of the Persian Gulf, carries great importance from a geographic point of view. According to defense experts, China would not only construct the Gawadar port, but it

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<sup>55</sup> Santoli, Al. "China's New Warfighting Skills: Emerging Threats to the U.S., India, Taiwan and the Asia/Pacific Region." American Foreign Policy Council Investigative Report, (September 2000) available online <<http://www.afpc.org/pubs/thailand.htm>>

<sup>56</sup> Santoli

<sup>57</sup> Roy, 174.

<sup>58</sup> FBIS-CHI-2001-0526 "Report suggests Chinese navy to have 'installations' at Gawadar"

<sup>59</sup> FBIS-CHI-2001-0526 "Installations' at Gawadar"

will also upgrade it.<sup>60</sup> China will also establish naval installations at the port, from which it would be able to keep a close eye on the Arabian Sea and the Persian Gulf. Apart from this, with Chinese naval installations at this port, India's growing power in the Indian Ocean can also be countered.<sup>61</sup>

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<sup>60</sup> FBIS "Installations' at Gawadar"

<sup>61</sup> FBIS "Installations' at Gawadar"



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#### IV. THE CAPABILITIES OF THE PLA NAVY

In terms of both its history and geography, mainland China has traditionally been classified as a continental power. Taking a broader view, however, China can also be thought of as a maritime country. Liu Huaqing, former PLAN commander, has characterized the twenty-first century as the 'century of the sea.'<sup>62</sup> He also has stated that a modern navy is needed to protect China's three million square miles of territorial waters, 11,250 miles of coastline, and more than 6,000 islands<sup>63</sup>

Seapower and sea-control capabilities are of growing importance for the Chinese view of the relationship between its nation power and maritime power.<sup>64</sup> To better understand which direction the PLAN might progress, this chapter will examine PLAN current capabilities and a number of key issues that could influence modernization's success or failure.<sup>65</sup>

##### A. SURFACE

Over the past decade, the PLAN has seen considerable growth of its surface fleet. The rapid modernization of the Taiwanese navy has been particularly alarming to the PLA high command.<sup>66</sup> China has more than doubled its replenishment ship fleet, acquired destroyers and frigates with greater range and speed, and embarked on an aggressive naval replacement shipbuilding program.<sup>67</sup>

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<sup>62</sup> Hutchings, Graham. *Modern China: A Guide to a Century of Change*. (Cambridge, Mass.: Harvard University Press, 2001), 334.

<sup>63</sup> Ibid., 334.

<sup>64</sup> Bullock, Chris. "From 'Coastal' to 'Forward' Defense The Development of a Chinese Naval Strategy for the 21<sup>st</sup> Century" Proceedings of the 2<sup>nd</sup> Annual Military and Strategic Studies Colloquium available online <<http://www.stratnet.ucalgary.ca/smss/Colloquium2000/Bullock.html>>

<sup>65</sup> For a complete list of PLAN surface, submarine and air force assets see Appendixes B-E

<sup>66</sup> You Ji, 188.

<sup>67</sup> Yung, 12-13.

## **1. Sovremennyy-class destroyer**

In December 1996, China reached an agreement with Russia for the purchase of two *Sovremennyy*-class guided missile destroyers. The first ship was delivered in early 2000, and the second was delivered January 2001. The two destroyers are designed to enhance the PLAN's surface strike capabilities and its ability to deploy over longer distances. The destroyers are equipped with the SS-N-22 "Sunburn" anti-ship missiles, which have a long fire range, great power, and strong interference capability, and they are also rumored to be able to effectively deal with aircraft carrier groups.<sup>68</sup> These are the first Chinese warships to have a data link system.<sup>69</sup> On January 3, 2002, China ordered two more *Sovremennyy*-class from Russia's Northern Shipyard in St. Petersburg.

## **2. Luhai-class destroyer**

In 1999, the PLAN launched its largest, most advanced, and most powerful indigenously produced warship, the *Shenzhan*, a *Luhai*-class destroyer. The *Shenzhan*'s accomplishments include a recently completed cruise in September-October 2001 which included Western Europe and Mediterranean port calls. These show-the-flag cruises marked the first time the PLAN has ventured beyond Pacific and Indian Ocean waters.<sup>70</sup> While the ship is a product of the Chinese shipbuilding industry, a significant amount of the destroyer systems are imported. It was announced in August 1999 that China would evaluate the performance of *Shenzhen* before beginning construction of a second ship,

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<sup>68</sup> FBIS-CHI-2000-0215 February 15, 2000 "Article on Modernization of China's Navy"

<sup>69</sup> Saunders, Stephen, ed. *Jane's Fighting Ships: 2001-2002*. London, UK: Jane's Information Group, 2001. 119.

<sup>70</sup> Baker, A.D., III. "Combat Fleets" *Proceedings*, Feb 2002, 92.

but it appears that an expected second ship is not forthcoming.<sup>71</sup>

### **3. Luhu-class destroyer**

In the late 1980s, *Luhu*-class destroyers were introduced into the PLAN inventory. These provide the Chinese navy for the first time with much-needed anti-air and anti-submarine warfare capabilities. *Luhu*-class destroyers are fitted with French-built sonar, Crotale point-defense missiles, eight C-802 surface-to-surface missiles, and a helicopter deck and hanger.<sup>72</sup> Chinese plans to augment its surface fleet with additional *Luhu*-class destroyers is evidence of China's shift from coastal to ocean-going warship construction. Sources in Beijing have led analysts to believe that two new warships being built at Jiangnan shipyard may be new *Luhu* destroyers.<sup>73</sup>

### **4. Luda-class destroyer**

The most numerous destroyer in the Chinese fleet is *Luda*-class destroyer. In the early 1990s the Dalian acquired sophisticated air and surface search radar systems.

### **5. Jiangwei-class frigates**

The Jiangwei frigate program started in 1988, with the first sea trials conducted in late 1991.<sup>74</sup> Six of these 2,250-ton frigates will supplement the older *Jianghu*-class, built in the mid-1970s. The Jiangwei's carry CY-1 anti-submarine weapons, C801 anti-ship missiles, and HQ-61 surface-to-air missiles, as well as a two Z-9A helicopters.<sup>75</sup>

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<sup>71</sup> Baker, A.D., III. "Combat Fleets" *Proceedings*, Feb 2002, 92.

<sup>72</sup> You Ji, 188.

<sup>73</sup> *Jane's Defense Weekly*. "China Constructing Two New Warships" February 27, 2002

<sup>74</sup> Baker, A.D., III. *Combat Fleets of the World 2000-2001*, 113.

<sup>75</sup> *Jane's Fighting Ships*, 126-127.

## **6. *Jianghu*-class frigates**

The older generation *Jianghu*-class frigates I/II are the most numerous class of warships serving with the PLAN. These have gone through numerous revisions and have been sold abroad to Egypt, Thailand, and Bangladesh. These *Jianghu*-class frigates are a modification of the Jiangdong class with SSM in place of SAM. *Jianghu* III frigates have improved ESM/ECM suites and the *Jianghu* IV have a helicopter hanger, while the *Jianghu* V have no helicopter and reduced number of missiles.

## **7. Missile boats**

The *Houxin* class (Type 030-11) guided missile ship was introduced in 1991. There are 20 such ships in the PLAN inventory and they are dedicated to the South China Sea Fleet. This class of missile boat is permitting the retirement of the *Hegu* and *Huoku* class missile boats.<sup>76</sup>

## **B. SUBMARINES**

With more than 100 conventionally powered submarines and several nuclear submarines in reserve and on duty, China's submarine corps is the second largest in the world today. The submarine corps of the PLAN is one of the most significant combat arms of the country and is indeed its trump card to deter any potential enemy.<sup>77</sup>

The PLAN has seven submarine flotillas, each flotilla is composed of two, four-boat squadrons, deployed among the three fleets. The numbers of flotillas and squadrons in each flotilla have been diminished as the large *Romeo*-class force has steadily declined. Domestic development of conventional submarines had been restricted by the lack of manpower and funding directed into the nuclear-powered

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<sup>76</sup> Cole, 102.

<sup>77</sup> Kondapalli, Srikanth. "China's Naval Strategy." *Strategic Analysis* 23, no. 12 (March 2000): 2037-51. available online

fleet. Construction of the nuclear-powered *Han*-class attack submarine is continuing.

### **1. *Xia*-class and Type 094 SSBNs**

China's sea-based missile force consists of one ballistic missile submarine that has been plagued with problematic operational capabilities. Although this one *Xia*-class nuclear-ballistic missile submarine is not always operational, it still can carry up to 12 JL-1 SLBM. Construction of the experimental *Xia*-class has stopped while the PLAN awaits the new Type 094 class.

Four to eight of this new class of Type 094s is expected to deploy in the next few years and will carry 16 launch tubes for the longer range MIRV JL-2 SLBM that are estimated to have a range of 4,900 miles.

### **2. *Han*-class and Type 093 SSNs**

The *Han*-class submarines have been in commission since 1974. It took a long time for the Chinese to build this class of submarine, given problems relating to the power plant.<sup>78</sup> A key requirement for the PLAN is a second-generation nuclear-powered attack submarine, Type 093. Prefabrication of a Type 093 nuclear attack submarine began in 1994 and the boat is expected to be launched in 2002 from Huludao shipyard. The in-service date has been set at 2004, with a second of the class to follow two years later.<sup>79</sup>

### **3. *Kilo*-class SSK**

The acquisition from Russia of four *Kilo*-class submarines at a cost of more than US\$810 million has provided China with a proven conventional submarine platform. The submarines, the first Project 636 models to

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<sup>78</sup> Kondapalli, "China's Naval Equipment Acquisition."

<sup>79</sup> *Jane's online* [1.13.12 Inventory: Submarines](#)

be sold abroad, are reportedly fitted with automatic torpedo launching equipment and advanced noise reduction devices. Despite this advanced weaponry, the PLAN has had trouble with training and maintenance costs for them. Additional training is underway, but there are reports that the PLAN will still not take the *Kilos* below a depth of 50 meters. In 1999, China took possession of its fourth Project 636 *Kilo*-class submarine. There are rumors that China may obtain a fifth *Kilo*, but this is far from certain.

#### **4. *Romeo/Ming/Song-class SS***

The first Chinese *Romeo*-class (Type 031) submarine was built in 1962. For several years, China's conventional submarine fleet was based on Soviet-supplied *Romeo*-class patrol submarines. In 1987, the production of this class was stopped, giving way to the improved *Ming* version.<sup>80</sup>

The *Ming*-class is a modified and enlarged version of the *Romeo*-class submarine, it was laid down in the 1971-72 period and became operational by the 1975-76 period.<sup>81</sup> Delay's in the *Song* program has led the PLAN to resume the *Ming*-class (Type 035) program, previously thought to have ended with the launch of the 14th hull in mid-1996.

The *Song* (Type 039) boats will eventually replace the *Romeos* in service and eventually complement the *Ming* submarines. The first *Song*-class conventional submarine was launched in early 1994 and underwent sea trials in 1999 with less than impressive results.<sup>82</sup>

#### **C. PLAN AIR FORCE**

The principal aviation missions are base defense, maritime patrol, and anti-ship operations. At the founding

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<sup>16</sup> Kondapalli, "China's Naval Equipment Acquisition."

<sup>81</sup> Kondapalli, "China's Naval Equipment Acquisition."

<sup>82</sup> Kondapalli, "China's Naval Equipment Acquisition."

of the PLANAF, there was only one type of aircraft. Now the PLANAF has about 541 aircraft of several different versions. By the mid-1990s, the Chinese naval air force had a total of eight divisions with 27 regiments divided among the three sea fleets. Besides increasing the number of ASW helicopters embarked in surface escorts, the PLAN is expected to acquire better, longer-range, land-based maritime patrol aircraft. The recent acquisition of the Soviet Su-27 should help the PLAN improve its short-range air cover.<sup>83</sup> The limited flight radius of land-based naval aircraft exposes PLAN surface units to enemy air attack.<sup>84</sup>

Despite rumors alleging Chinese interests, the Chinese still do not have an aircraft carrier and most of the PLANAF are shore-based combat aircraft. If China were to build or purchase an aircraft carrier, such an asset would enable it to provide increased air defense, support for amphibious operations, and project force.<sup>85</sup> According to a January 2000 *Ta Kung Pao* article, China has been studying building an aircraft carrier, but has not decided to build one.<sup>86</sup>

Although highly speculative, some sources contend that if Beijing decides to proceed, the displacement of China's first aircraft carrier will be 48,000 tons.<sup>87</sup> According to these sources the aircraft carrier, which would use Russian TB12 technology for its steam turbine, will be able to navigate at a maximum speed of 30 knots and will be

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<sup>83</sup> Yung, 16.

<sup>84</sup> You Ji, 164.

<sup>85</sup> Federation of American Scientists. "Aircraft Carrier Project" available online <<http://www.fas.org/man/dod-101/sys/ship/row/plan/cv.htm>>

<sup>86</sup> FBIS-CHI-2000-0117 "Report on PRC Plan to Build Aircraft Carrier Dismissed"

<sup>87</sup> Chen, Edward "Republic of China's Ministry of National Defense Closely Watching Reports on Beijing Aircraft-Carrier" available online <<http://www.fas.org/news/china/2000/e-01-12-00-23.htm>>



outfitted to embark 24 Su-30 aircraft, which China bought from Russia for US\$2 billion.<sup>88</sup>

#### **D. PLAN AMPHIBIOUS CAPABILITIES**

PLAN amphibious landing capability—which is comprised of two brigades—is limited by the small amount of amphibious warfare ships in the PLAN's inventory. China is continuing to improve its capabilities to conduct amphibious and airborne operations. Although China has never conducted an exercise of division-size or larger exercise and was fully coordinated with air support and airborne operations, its amphibious force is believed capable of landing at least one division on a beach, depending on the mix of equipment and stores for immediate resupply. If China were to use its merchant fleet, its capability to move forces would increase, although inadequate air defense and lack of training in cross-beach movement of forces would be critical shortcomings.

China has built several air-cushion vehicles and evaluated their designs, including training by its marine force.<sup>89</sup> It is expected that China will eventually acquire a small number of these craft for a rapid infantry assault capability, although the availability of a mother ship for regional transits is uncertain. Probably these craft will need to be carried by a suitable cargo ship, amphibious vehicle landing ship, or possibly a float-on/float-off (FLO/FLO) merchant ship.

While both marine brigades are primarily prepared for a Taiwan contingency, they are not assigned to the East Sea Fleet, which has operational responsibility for Taiwan, because of the lack of training facilities. The South Sea

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<sup>88</sup> Chen, Edward "Republic of China's Ministry of National Defense Closely Watching Reports on Beijing Aircraft-Carrier" available online <<http://www.fas.org/news/china/2000/e-01-12-00-23.htm>>

<sup>89</sup> Jane's Defense Sentinel Security Assessment-[China](#) and Northeast Asia-12

Fleet also possesses the bulk of the all the new *Yuhan*-class landing ships. The combined strength of both brigades apparently does not exceed 10,000.<sup>90</sup>

#### **E. COASTAL DEFENSE**

The coastal defense responsibility of the PLAN includes warding off impending invasions of the enemy troops, protection of industrial assets along the coast, including coastal defense artillery and naval bases. The PLAN's coast guard was developed originally out of based on the coastal artillery troops. With the expansion of scientific and technological capabilities, the coast guard has been developing into a coastal missile force with improvements in its missile attacking capability, especially in the aspect of breaking through the enemy's coastal defense lines.

#### **F. KEY FACTORS FOR SUCCESS**

##### **1. Budget**

China has many factors that could influence the scope and success of military modernization. Officially, China's military spending has received the lowest priority of the four modernizations. In 2001, China's military expenditures are now projected to grow faster than expenditures on science and technology.<sup>91</sup> The defense budget for the year 2000 was estimated at 14.5 billion.<sup>92</sup> Actual military spending is estimated to be anywhere from three to ten times the official figure due to accounting inconsistencies and under-reporting, as well as funding for some big-ticket defense items listed elsewhere.<sup>93</sup>

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<sup>90</sup> Jane's Defense Sentinel Security Assessment-[China](#) and Northeast Asia-12

<sup>91</sup> Pomfret, John, "China Plans Major Boost in Spending for Military" Washington Post March 6, 2001.

<sup>92</sup> International Institute for Strategic Studies, *The Military Balance 2000-2001* Oxford: Oxford Univ Press, November 2000

<sup>93</sup> Eckholm, Erik. "China Is Increasing Its Budget For Military Spending By 17.6%" New York Times March 7, 2002

These estimates vary according to estimates of purchasing power and the inclusion of estimates of other sources of military funding. The official budget excludes arms sales revenues, pension costs, the People's Armed Police, and commercial earnings. There is no official transparency in China's defense budget and expenditure.

## **2. Defense Industries**

The Chinese are beginning to address problems of modernization of a defense industry that produces weapons of 1950s-1960s quality. Most defense industries will have to be retooled and their workers taught new techniques to produce greater amounts of state-of-the-art equipment.<sup>94</sup> The defense industries have been hampered by a number of problems for many years. Except for pockets of excellence in nuclear, ballistic and cruise missiles, Chinese indigenous defense capabilities are poor, particularly in aircraft and submarines. China has no alternative, while it is waiting and restructuring its defense industries, but to buy abroad.

## **3. Foreign weapons and technology procurement**

Shortfalls in the defense industrial sector are made up by purchasing military equipment abroad. The Chinese have little choice but to turn to the Russians and the Israelis for certain systems. The lessons of the Sino-Soviet split of 40 years ago have not been lost on the leaders of the PRC today. Purchasing foreign weapons technology introduces a perilous security relationship that makes Beijing dependent on an external supply of arms.

The extent to which China will be able to integrate foreign equipment and keep up needed maintenance remains an

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<sup>94</sup> Blasko, Dennis J. "Evaluating Chinese Military Procurement from Russia" in *Joint Forces Quarterly* (Autumn-Winter 1997-98) available online <[http://www.dtic.mil/doctrine/jel/jfq\\_pubs/1917pgs.pdf](http://www.dtic.mil/doctrine/jel/jfq_pubs/1917pgs.pdf)>, 95.

uncertain challenge for the PLAN. Four diesel electric *Kilo* submarines, two of which have had severe maintenance problems, have been rumored not to have left port for over a year. The Su-27 has to be returned to Russia every thousand hours of flight time for engine overhaul.

China is not yet capable of producing operational, state-of-the art military equipment today. The fact that China is buying so much of its equipment overseas, primarily from Russia, but also from other European nations as well as Israel, is really testimony to the fact that the military-industrial complex within China is still rather weak and disorganized.

#### **4. PLAN professionalism**

The development of Chinese communism was inexorably linked with its military power during China's civil war, and communist leaders have fused civil and military roles.<sup>95</sup> During the Cultural Revolution, the PLA forces had become extensively engaged in the political arena and were central in maintaining the Party's power. One military reform that Deng attempted to introduce was reform in the PLA's command structure by placing it under the State's rather than the Party's policy-making apparatus. Even though the new Military Commission under the National People's Congress was established in the early 1983, its members are identical to the still intact CMC.

The PLA has made vast efforts in recent years to establish professionalism in the officer and enlisted corps. They are doing things that should look familiar to soldiers in the West—better recruitment of more educated soldiers, better retention, and even building up an NCO

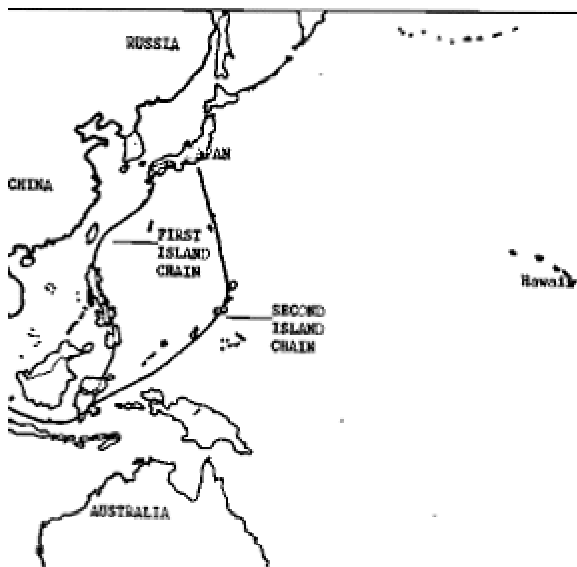
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<sup>95</sup> Heaton, William R. "The People's Republic of China," in Douglas J. Murray and Paul R. Viotti, eds., *The Defense Policies of Nation: A Comparative Study* (3<sup>rd</sup> ed.) (Baltimore: Johns Hopkins University Press, 1994), 386.

corps. At present, over 80 percent of naval vessel captains and department heads are university graduates, whereas the number of naval officers with post-secondary academic qualifications or above is nearly 60 percent greater than that at the initial stage of reform.<sup>96</sup>

#### G. MARITIME STRATEGY

"Blue water" is part of a maritime strategy paradigm with "brown" and "Green" water. Brown water refers to



littoral ocean areas, within about one hundred nautical miles of the coastline; green water is less definite, referring to ocean areas from about one hundred nautical miles to the next significant land formation.<sup>97</sup> Blue water and safeguarding maritime interests, the development of the marine economy, an

Figure 1. *Adm. Liu Huaqing island chains* grading of maritime science  
Source: Cole, 165.

and ecology, and protection of the maritime environment goes far beyond all traditional visions of "sea guerrillas" that was expected to only deny imperial aggressors access to China's shores and territorial waters.<sup>98</sup>

In the early 1990s, new technology demanded revisions to military doctrine and organization. In order to make the PLAN a viable force, all of the hardware, tactics, information, and the professional sailors must all work together in a suitable force structure. In the aftermath of the Persian Gulf War, the PLA leadership concluded that

<sup>96</sup> FBIS-CHI-1999-0513 April 19, 1999 "Shi Yunsheng on Navy Development"

<sup>97</sup> Cole, 10.

<sup>98</sup> Singh, *Continuity and Change in China's Maritime Strategy*

limited wars were influenced heavily by the impact of technology, "limited war under high-tech conditions."

While the PLA forces all had been reduced to some degree, the PLAN, the Strategic Missile Forces, and People's Liberation Army Air Force (PLAAF) all enjoyed increased attention and considerable investment from the modernization. At a 1992 meeting in Beijing, the CMC allocated a significantly higher proportion of the defense budget to warship procurement to enable the PLAN to undertake the enhanced role.

Admiral Zhang Lianzhong succeeded Admiral Liu as commander of the PLAN in 1988, serving in that post until 1997. He perpetuated the important relationships with European navies, concentrating on significant purchases of equipment from France.<sup>99</sup> The PLAN is transforming itself from a large-scale force into one that is smaller, more efficient, and technically proficient.

#### **H. SUMMARY**

China's most inherent security goal is a need for the current political leadership to maintain its legitimacy and to keep the country together in a stable manner. Beijing declares that China's fundamental interests lie in its domestic development and stability, the peace and prosperity of its surrounding regions, and the establishment of a new regional security order based on the Five Principles of Peaceful Coexistence.<sup>100</sup>

PRC leaders have long recognized that China has been encircled by potentially hostile forces. By maintaining an environment conducive to a prosperous economy and the ability to defend the Chinese mainland against all existing

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<sup>99</sup> McVadon and Allen, 47.

<sup>100</sup> China's National Defense in 2000 White Paper, 16 Oct 2000, FBIS-CHI-2000-1016, p. 4

and foreseeable threats, the Chinese state and the Communist Party will prosper. China's national objectives are to achieve internal security and modernization, maintain territorial integrity, and achieve peace and stability in the region in the wake of Soviet Collapse.<sup>101</sup>

Despite the PLAN's many weaknesses, it is focused on correcting those weaknesses. There is no doubt that the Chinese have long way to achieve a modern military. The PRC has started down this road, and if it continues, in fifteen or twenty years, it will have not only the hardware, but also a much more proficient force, capable of projecting power beyond China's borders.

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<sup>101</sup> Heaton, 383.

## V. CONCLUSION

The evidence to support this thesis is compelling. As China persists and strive to realize its economic potential, the PLAN will continue to have a growing and important role and establish itself as a regional presence in the Indian Ocean. Beijing's interest in this region is based on security.

The realities of the current situation in the Indian Ocean as they relate to the PLAN are:

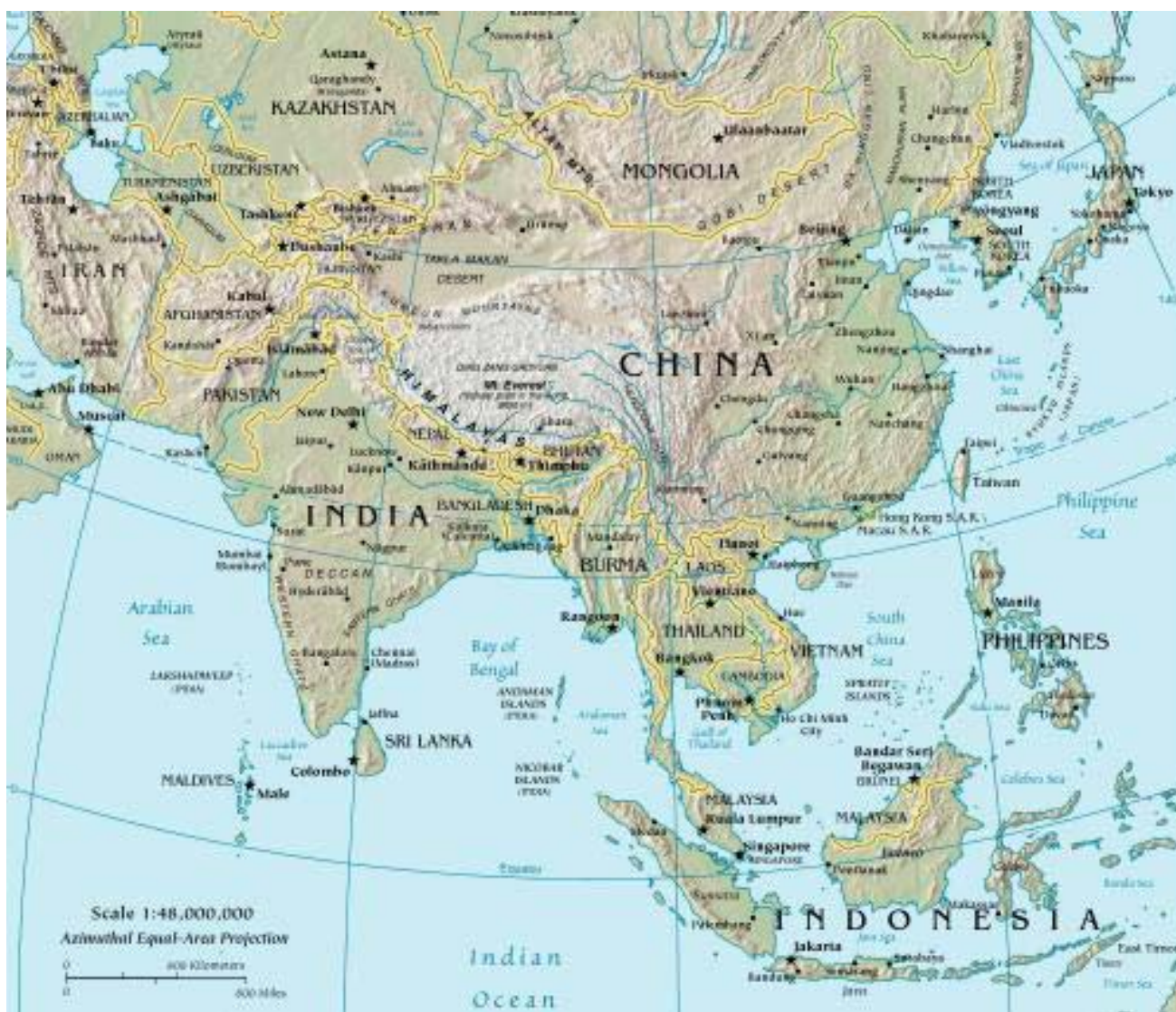
- The role of the PLAN has evolved from its limited Maoist traditions toward becoming a viable modern navy.
- No longer will the role of the PLA Navy in China's security be small in the future.
- China's security needs in the Indian Ocean call for the continued modernization of the PLA Navy.
- China's intention to expand into the Indian maritime area of operation will continue to solidify current regional relationships. It may also contribute to a naval arms buildup in the Indian Ocean region with India.

During the latter part of the twentieth century, the United States and China have had some issues that accentuated the two governments differences. These variations have resulted in a relationship that has been characterized by friction. Given the United States led "War on Terrorism" and commitments to other countries to ensure stability, the U.S. presence in the Asia-Pacific region will probably not be reduced in the near future.



The United States must participate and encourage the involvement of the PRC and other countries in a multilateral security structure for navies in the region by facilitating fleet exercises, high-level meetings, and other trust building measures to ensure stability. As we have seen since September 11<sup>th</sup>, it is possible for the country characterized previously as a "military competitor with a formidable resource" to emerge as a country capable of earnest support. Dialogue and diplomacy, coupled with the PLA Navy's growth in understanding of other navies' capabilities and functions, will lead to a greater opportunity for continued peace and economic prosperity in the expanse of the Indian Ocean.

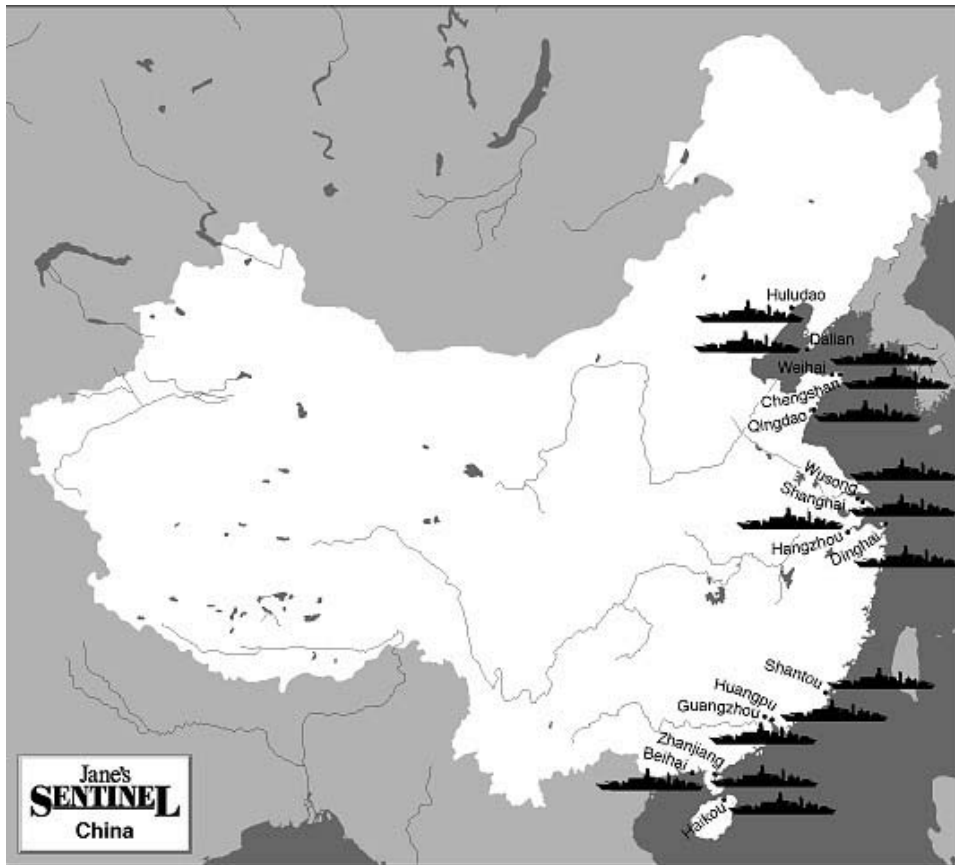
APPENDIX A. MAP OF THE ASIA-PACIFIC AND INDIAN OCEAN  
REGIONS



Source: CIA World Factbook <<http://www.odci.gov/cia/publications/factbook>>

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## APPENDIX B. CHINA NAVAL BASES



Base	Location
<b>East Sea Fleet</b>	
Headquarters: Shanghai	31° 06'N 121° 22'E
Dinghai	34° 30'N 118° 48'E
Hangzhou	30° 18'N 120° 07'E
Wusong	31° 23'N 121° 30'E
<b>North Sea Fleet</b>	
Headquarters: Qingdao	36° 04'N 120° 22'E
Chengshan	37° 23'N 122° 40'E
Dalian	38° 53'N 121° 37'E
Huludao <sup>(1)</sup>	40° 47'N 121° E
Weihai	37° 30'N 122° 04'E
<b>South Sea Fleet</b>	
Headquarters: Zhanjiang	21° 10'N 110° 20'E
Beihai	21° 29'N 109° 10'E
Guangzhou	23° 08'N 113° 20'E
Haikou	20° 05'N 110° 25'E
Huangpu	23° 08'N 113° 31'E
Shantou	23° 23'N 116° 39'E
Yulin	22° 37'N 110° 08'E

Source: Jane's Defense Sentinel Security Assessment-China and Northeast Asia-12

[1.13.10 Navy Bases](#)

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### APPENDIX C. CHINA'S SURFACE FORCE ASSETS

Type	Role	Quantity
Sovremenny	Destroyer	2(+2)
Luhu (Type 052)	Destroyer	2
Luda I/II (Type 051)	Destroyer	15
Luda III	Destroyer	1
Luhai	Destroyer	1
Jianghu I (Type 053)	Frigate	27
Jianghu II (Type 053)	Frigate	1
Jianghu III/IV (Type 053 HT)	Frigate	3
Jiangwei I (Type 053 H2G)	Frigate	4
Jiangwei II	Frigate	6(+2)
Houjian (Type 037/2, Huang)	Fast Attack Craft - Missile	6(+1)
Houxin (Type 037/1G)	Fast Attack Craft - Missile	26
Huangfen (Type 021, Osa I)	Fast Attack Craft - Missile	30
Houku	Fast Attack Craft - Missile	25
Hainan (Type 037)	Fast Attack Craft - Patrol	95
Haiqing (Type 037/1)	Fast Attack Craft - Patrol	22
Huchuan (Type 025/026)	Fast Attack Craft - Torpedo	15
Shanghai II (Type 062)	Fast Attack Craft - Gun	98
Haijiu	Large Patrol Craft	2
Haizhui/Shanghai III	Coastal Patrol Craft	15(+2)
T 43 (Type 010)	Minesweeper - Ocean	27(+13)
Wosao	Minesweeper - Coastal	8(+1)
Futi (Type 312)	Drone Minesweeper	4(+42)
Wolei	Minelayer	1
Yuting (Type 074)	Landing Ship Tank	8
Yukan (Type 072)	Landing Ship Tank	7
Yuliang (Type 079)	Landing Ship Medium	22
Yudeng (Type 073)	Landing Ship Medium	1
Yudao	Landing Ship Medium	1
Yuhai (Wuhu-A) (Type 074)	Landing Ship Medium	13(+3)
Yunnan (Type 067)	Landing Craft Utility	36(+200)
Yuch'in (Type 068/069)	Landing Craft Utility/Personnel	8(+30)
Jingsah II	Hovercraft	10
Daxin	Training Ship	1
Shichang	Air Training Ship	1
Qiongsha	Personnel Attack Transport	6
Dazhi	Submarine Support Ship	1
Dajiang	Submarine Support Ship	3
Dadong	Salvage Ship	1
Dadao	Salvage Ship	1
Dazhou	Submarine Tender	2
Dalang	Submarine Support Ship	4
Hudong	Submarine Rescue Ship	1
Achelous	Repair Ship	1

### APPENDIX C. CHINA'S SURFACE FORCE ASSETS cont.

Dayun (Type 904)	Cargo Ship	2
Andong	Cargo Ship	1
Galati	Cargo Ship	1
Yantai	Cargo Ship	2
Danlin	Cargo Ship	13
Hongqi	Cargo Ship	5
Leizhou	Cargo Ship	9
Fuqing	Replenishment Ship	2
Nanyun	Replenishment Ship	1
Shengli	Replenishment Ship	2
Fuzhou	Replenishment Ship	7
Fulin	Replenishment Ship	8
Dandao	Coastal Tanker	3
Guangzhou	Coastal Tanker/Water Carrier	5
Yen Pai	Degaussing Vessel	3
Dadie	Intelligence Gathering Vessel	1
<i>Yuan Wang 1-4</i>	Space Event Ship	4
<i>Shiyan</i>	Space Event Ship	1
Wuhu B	Research Ship	2
Dahua	Research Ship	1
Xiangyang Hong	Research Ship	13
Yanqian	Research Ship	2
Dajiang	Research Ship	2
Hai Ying	Research Ship	2
Kan	Research Ship	2
Xing Fengshan	Research Ship	1
Hai	Research Ship	1
Dong Fang Hong	Research Ship	1
Hai Yang	Research Ship	2
Shuguang 04	Research Ship	5
Shuguang (ex-T 43)	Research/Survey Ship	1
Ganzhu	Research Ship	1
Yenlai	Survey Ship	5
Yannan	Survey Ship	4
Wuhu B	Research Ship	2
Yanbing (modified Yanha)	Icebreaker	1
Yanha	Icebreaker	3

Source: Jane's Defense Sentinel Security Assessment-China and Northeast Asia-12  
[1.13.11 Inventory: Surface Fleet](#)

#### APPENDIX D. CHINA'S SUBMARINE FORCE ASSETS

Type	Role	Quantity
Xia (Type 092)	SSBN	1
Golf	SSB	1
Han	SSN	5
Song (Type 039)	SSK	3
'Kilo' (Type 877EKM)	SSK	4
'Ming' (Type 035)	SS	17
'Romeo' (Type 033)	SS	32
<b>Key</b> SSBN - Ballistic Missile Nuclear Submarine. SSB - Ballistic Missile Submarine. SSN - Nuclear Attack Submarine. SSK - Diesel-Electric Attack Submarine. SS - Attack Submarine. SSG - Guided Missile Submarine.		

Source: Jane's Defense Sentinel Security Assessment-China and Northeast Asia-12  
[1.13.12 Inventory: Submarines](#)

#### APPENDIX E. CHINA'S NAVAL AIR FORCE ASSETS

Type	Role	Quantity
Xian H-6/H-6 III	Bomber	30
Harbin H-5	Bomber	100
Nanchang Q-5	Attack	100
Shenyang J-6/JJ-6	Air Defence/Attack	250
Chengdu/Guizhou J-7 I/II/III	Air Defence/Attack	100
Shaanxi Y-8	Airborne Early Warning	6 <sup>(1)</sup>
Harbin SH-5	Maritime Patrol	4
Beriev Be-6 'Madge'	ASW Flying-Boat	12
Xian Y-7	Transport	10
Shijiazhuang Y-5	Utility	40
Shenyang J-5A	Lead-In Trainer	50
Aerospatiale SA 321G/Zhi-8 Super Frelon	ASW Helicopter	6
Sud SA 321J Super Frelon/Changhe Z-8	ASW Helicopter	8/12
Harbin Zhi-9A	ASW Helicopter	10
Kamov Ka 28 'Helix-A'	ASW Helicopter	12 <sup>(1)</sup>

Source: Jane's Defense Sentinel Security Assessment-China and Northeast Asia-12  
[1.13.13 Inventory: Naval Aviation](#) and [1.13.14 Inventory: Naval Aviation, Rotary-Wing](#)



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## BIBLIOGRAPHY

Baker, A.D., III, *ed. Combat Fleets of the World 2000-2001*, Annapolis, MD Naval Institute Press, 2000.

Baker, A.D., III. "Combat Fleets" *Proceedings*, Feb 2002. 92

Blasko, Dennis J. "Evaluating Chinese Military Procurement from Russia" in *Joint Forces Quarterly* (Autumn-Winter 1997-98) available online  
<[http://www.dtic.mil/doctrine/jel/jfq\\_pubs/1917pgs.pdf](http://www.dtic.mil/doctrine/jel/jfq_pubs/1917pgs.pdf)>

Bodansky, Yossef, "Beijing's Surge for the Strait of Malacca" *Defense and Foreign Affairs*, (September 1995) available online  
<[http://www.freeman.org/m\\_online/bodansky/beijing.htm](http://www.freeman.org/m_online/bodansky/beijing.htm)>

CIA World Factbook. available online <<http://www.odci.gov/cia/publications/factbook>>

Cole, Bernard D. *The Great Wall at Sea*. Annapolis: MD Naval Institute Press, 2001.

Chen, Edward "Republic of China's Ministry of National Defense Closely Watching Reports on Beijing Aircraft-Carrier" available online  
<<http://www.fas.org/news/china/2000/e-01-12-00-23.htm>>

Dowens, Erica Strecker. *China's Quest for Energy Security*. Santa Monica, Calif.: RAND available online <<http://www.rand.org/publications/MR/MR1244>>

Eckholm, Erik. "China Is Increasing Its Budget For Military Spending By 17.6%" *New York Times* March 7, 2002

Federation of American Scientists. "Aircraft Carrier Project" available online  
<<http://www.fas.org/man/dod-101/sys/ship/row/plan/cv.htm>>

Foreign Broadcast Information Service, China. Referred to as FBIS.  
FBIS-CHI-2001-0526 "Report suggests Chinese navy to have 'installations' at Gawadar"

FBIS-CHI-2000-1120 "China NDU Professor Views India's Military Power"

- FBIS-CHI-2000-1016 “China’s National Defense in 2000 White Paper”
- FBIS-CHI-2000-0215 “Article on Modernization of China’s Navy”
- FBIS-CHI-2000-0117 “Report on PRC Plan to Build Aircraft Carrier Dismissed”
- FBIS-CHI-1999-0513 “Shi Yunsheng on Navy Development”
- Forsberg, Steven J. “Is a China India Naval Alliance Possible?” *Proceedings*, March 2002: 70-72
- Frazier, Mark W. "China-India Relations since Pokhran II: Assessing Sources of Conflict and Cooperation" *National Bureau of Asian Research* Vol. 3, No. 2 available online <<http://www.nbr.org/publications/review/vol3no2/essay.html>>
- Garver, John W. *Foreign Relations of the People's Republic of China*. Englewood Cliffs, N.J.: Prentice Hall, 1993.
- Godwin, Paul H. B. "From Continent to Periphery: PLA Doctrine, Strategy, and Capabilities Towards 2000." *China Quarterly* 146 (June 1996): 464-87.
- Heaton, William R. “The People’s Republic of China,” in Douglas J. Murray and Paul R. Viotti, eds., *The Defense Policies of Nation: A Comparative Study* (3<sup>rd</sup> ed.) Baltimore: Johns Hopkins University Press, 1994.
- Hill, John. “Myanmar’s Favor in Demand” *Jane’s Intelligence Review* February 01, 2002
- Hutchings, Graham. *Modern China: A Guide to a Century of Change*. Cambridge, Mass.: Harvard University Press, 2001.
- International Institute for Strategic Studies, *The Military Balance 2000-2001* Oxford: Oxford Univ Press, November 2000
- Jha, Prem Shankar “Why India Went Nuclear” *Columbia International Affairs Online* Vol. 2, No. 3 (Jul.–Sept.1998) found online <[http://www.ciaonet.org/olj/wa/wa\\_sep98jhp.html](http://www.ciaonet.org/olj/wa/wa_sep98jhp.html)>

Jane's Defense Weekly. "China Constructing Two New Warships" February 27, 2002

Jane's Defense Sentinel Security Assessment-[China](#) and Northeast Asia-12: profile available online at  
<[http://www4.janes.com/search97cgi/s97\\_cgi?action=View&VdkVgwKey=%2Fcontent1%2Fjanesdata%2Fsent%2Fcnasu%2Fchins130.htm&Collection=current&ViewTemplate=janes\\_doc\\_view.htm&Prod\\_Name=CNASU&](http://www4.janes.com/search97cgi/s97_cgi?action=View&VdkVgwKey=%2Fcontent1%2Fjanesdata%2Fsent%2Fcnasu%2Fchins130.htm&Collection=current&ViewTemplate=janes_doc_view.htm&Prod_Name=CNASU&)>

Ji, Guoxing. "SLOC Security in the Asia Pacific." Center occasional paper Asia-Pacific Center for Security Studies Honolulu, Hawaii (February 2000) available online <[http://www.apcss.org/Publications/Paper\\_SLOC\\_Occasional.htm](http://www.apcss.org/Publications/Paper_SLOC_Occasional.htm)>

Johnson, David C. "Modernization of the PLA Navy and East Asian Regional Security Issues." *Journal of Public and International Affairs* (July 1996) available online <<http://www.wps.princeton.edu/~jpia/July96/johnson.html>>

Kondapalli, Srikanth. "China's Naval Equipment Acquisition." *Strategic Analysis* 23, no. 9 (December 1999):1509-30. available online <<http://www.idsa-india.org/an-dec9-7.html>>

Kondapalli, Srikanth. "China's Naval Strategy." *Strategic Analysis* 23, no. 12 (March 2000): 2037-51. available online <<http://www.idsa-india.org/an-mar00-3.html>>

Kondapalli, Srikanth. "China's Naval Structure and Dynamics." *Strategic Analysis* 22, no. 7 (October 1999): 1095-1115. available online <<http://www.idsa-india.org/an-oct9-4.html>>

Lewis, John Wilson, and Xue Litai. *China's Strategic Seapower: The Politics of Force Modernization in the Nuclear Age*. Stanford, Calif.: Stanford University Press, 1994.

McVadon, Eric A and Kenneth W. Allen. *China's Foreign Military Relations*. Henry L. Stimson Center. (October 1999) available online  
<<http://www.stimson.org/china/pdf/chinmil.pdf>>

Meisner, Maurice J. *Mao's China and After: A History of the People's Republic*. 3rd ed. New York, NY: Free Press, 1999.

Muller, David G., Jr. *China as a Maritime Power*. Boulder, Colo.: Westview Press, 1983.

Nathan, Andrew J., and Robert S. Ross. *The Great Wall and the Empty Fortress: China's Search for Security*. New York: W.W. Norton, 1997.

Pomfret, John, "China Plans Major Boost in Spending for Military" *Washington Post* March 6, 2001, A1

"Quadrennial Defense Review Report." *Department of Defense Publication*, September 30, 2001 available online <<http://www.defenselink.mil/pubs/qdr2001.pdf>>

Roy, Denny. *China's Foreign Relations*. Lanham, MD: Rowman & Littlefield Publishers Inc., 1998.

Santoli, Al. "China's New Warfighting Skills: Emerging Threats to the U.S., India, Taiwan and the Asia/Pacific Region." American Foreign Policy Council Investigative Report, (September 2000) available online <<http://www.afpc.org/pubs/thailand.htm>>

Sakhuja, Vijay, "Dragon's Dragonfly: The Chinese Aircraft Carrier" *Strategic Analysis* (October 2000) available online <[http://www.ciaonet.org/olj/sa/sa\\_oct00.html](http://www.ciaonet.org/olj/sa/sa_oct00.html)>

Saunders, Stephen, ed. *Jane's Fighting Ships: 2001-2002*. London, UK: Jane's Information Group, 2001.

Sidhu, K. S. *The Role of Navy in India's Defense*. (New Delhi: Harnam Publications, 1983)

Singh, Swaran "Continuity and Change in China's Maritime Strategy." *Strategic Analysis* 23, no. 9 (December 1999):1493-1508. available online <<http://www.idsa-india.org/an-dec9-6.html>>

Schell, Orville. *Mandate of Heaven: The Legacy of Tiananmen Square and the Next Generation of China's Leaders*. New York: Simon & Schuster, 1995.

Troush, Sergei. "China's Changing Oil Strategy and its Foreign Policy Implications"  
*Center for Northeast Asia Policy Studies Working Paper*, (Fall 1999) available online  
<[http://www.brookings.edu/dybdocroot/fp/cnaps/papers/1999\\_troush.htm](http://www.brookings.edu/dybdocroot/fp/cnaps/papers/1999_troush.htm) - FN2\_BACK>

You, Ji. *The Armed Forces of China*. New York: I.B. Tauris Publishers, 1999.

Yung, Christopher D. *People's War at Sea: Chinese Naval Power in the Twenty-First Century*. Alexandria, VA: Center for Naval Analysis. March 1996.

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3. Professor H. Lyman Miller  
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4. Professor Edward A. Olsen  
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